For YOU, the reader, and all the amazing things you'll do – R.S.

For my boys, Finbar, Dougal and Rufus – go change the world brilliantly! – A.T.

Aboriginal and Torres Strait Islander readers are advised that this book contains images and names of deceased persons.

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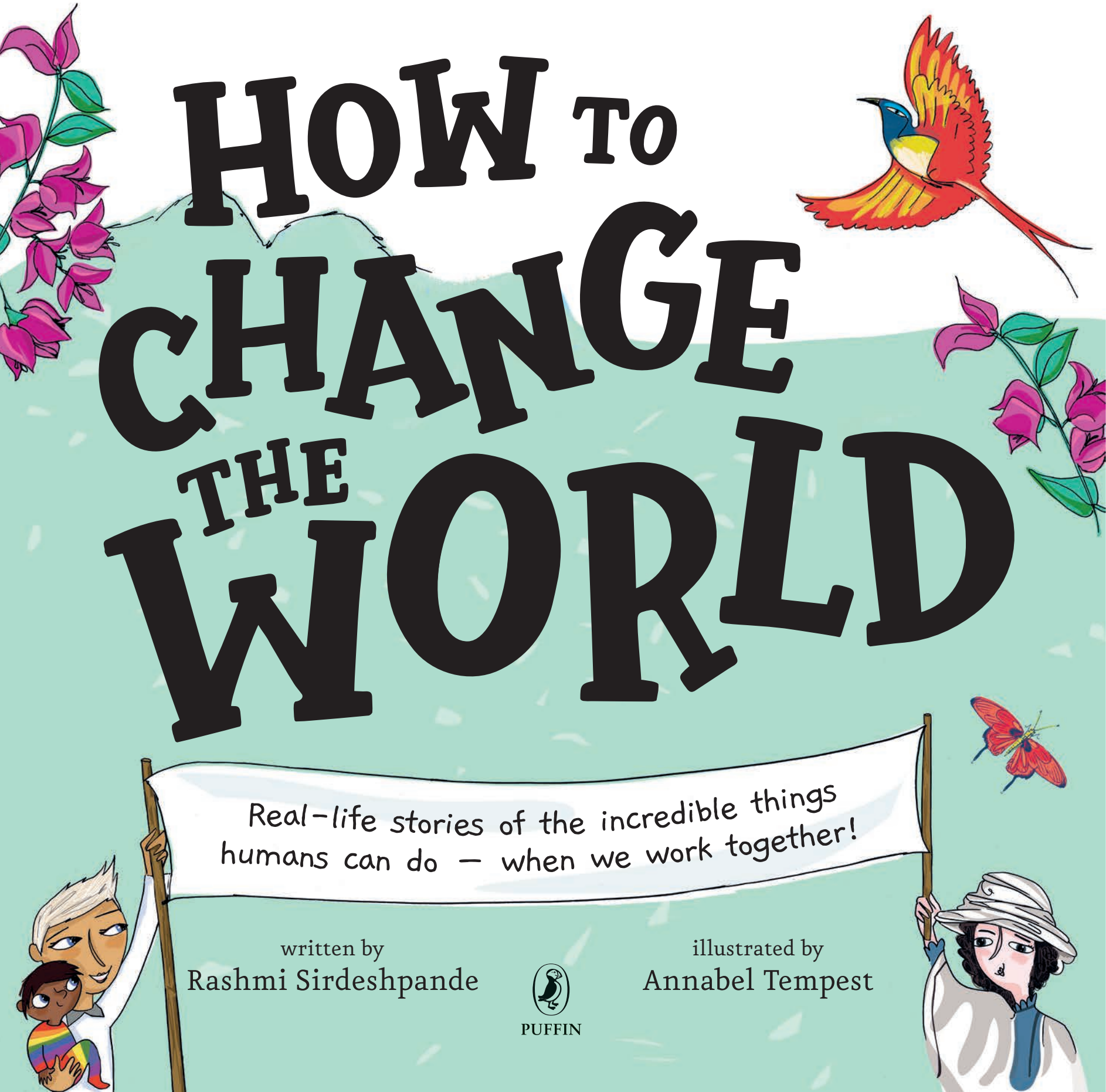
HOW TO CHANGE THE WORLD



Real-life stories of the incredible things humans can do — when we work together!

written by
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The Fight to Save the Whales

Humans have hunted whales for thousands of years. Whales used to be killed with hand-thrown harpoons, and hunting was limited to the coastlines, so there were still lots of whales in the ocean.

But over time, boats became bigger and faster, hunting equipment became deadlier and whaling expanded into the open oceans. By the eighteenth century, whaling had become a big business: whale oil was used in everything from cars and trains to soap and lamps. In the 1950s alone, almost half a million whales were killed – and that's just in the Southern Hemisphere! By the 1970s, some species like the humpback whale and the blue whale were at risk of extinction.

In 1970, biologist Roger Payne recorded the beautiful and complex songs of the humpback whales. The songs changed the way people thought about whales. Activist groups began to use them in their global campaigns.

Some groups, such as Greenpeace, set out on dangerous voyages to stop whaleships on the hunt. They took photos and video footage and shared them with the world for the first time ever. They even put their own bodies between the whales and the whalers' harpoons.

Lots of groups were working together to save the whales. And, over time, this made a real difference: public pressure was so strong that in 1982 the International Whaling Commission (the IWC) announced a global ban on commercial whaling, which started in 1986. It wasn't a total ban, though – it was a quota system to stop countries overhunting. This gave whale populations some time to recover.

Nowadays, a few thousand whales are still killed each year, but there has been a big reduction since the ban. Many species of whale have made a promising recovery, especially the humpback whale.

Blue whales can weigh up to 200 tons – that's twice the weight of the largest dinosaur! Or as much as 33 elephants!

Sadly, the ban is under threat and whaling is increasing again. Iceland, Japan and Norway are still hunting whales. And in December 2018, Japan announced that it was leaving the IWC and restarting commercial whaling.

Whales are also under threat from pollution, global warming, collisions with ships, and getting entangled in abandoned fishing nets. Campaigns and international organizations have done a LOT to bring whales back from the brink of extinction. But their future isn't certain, and these incredible creatures still need protecting.

The Start of Fairer Trade

Edna Ruth Byler

The fair trade movement wants everyone to think about the people who have created the food we eat and the clothes we wear. It started in the 1940s (in the USA) with Edna Ruth Byler selling needlework from Puerto Rico, and in the 1950s (in Europe) with handicrafts from Chinese refugees being sold in Oxfam's charity shops. These groups noticed that big companies were getting rich, while the workers in developing countries were not being paid fairly for their work. They lived on less than $2 dollars a day. The fair trade movement wanted change: they wanted the workers to be treated fairly and paid a fair wage.

Since then, fair trade organizations have now sprung up across the world. Some have labels like Fairtrade International's "FAIRTRADE Mark", a symbol to tell shoppers that growers have been paid a fair price – plus some extra money for their cooperatives. (Cooperatives are groups of growers that decide how to spend the extra money on things like schools, public toilets, or buying farming equipment.)

Gold-mining is extremely dangerous — Fairtrade miners in Peru chose to spend their extra money on safety equipment and training!

Chocolate is a luxury product, but many cocoa growers in places like Côte d'Ivoire and Ghana earn less each day than the price of a nice chocolate bar! And cocoa is a delicate plant, easily damaged by the sun, wind, pests and disease. Fairtrade makes sure growers are paid a fair price to protect them when times are tough.

Ordinary people have helped spread the word, buying fair trade and encouraging others to do the same. Today, all sorts of things are fair trade: coffee, chocolate, sugar, fruits, rice, flowers, cotton, and even gold.

Over half the bananas sold in Switzerland are now Fairtrade bananas!

It's not a perfect system. It doesn't help the growers who aren't part of cooperatives, and it doesn't always consider other issues (like the environment).

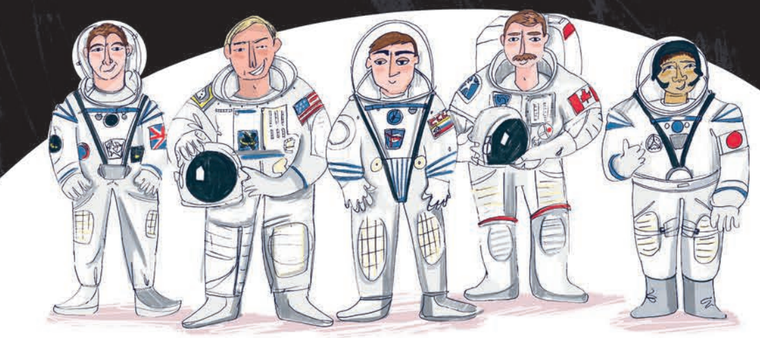
Despite the challenges, the FAIRTRADE Mark is still trusted around the world and it continues to make a difference to hundreds of thousands of growers and their families. It's a step in the right direction: the movement has encouraged everyone to remember that there are people behind the things we buy, and what it means to be fair to them.

The International Space Station

Flying through space, 240 miles above the Earth, the ISS is a giant space lab. It lets us learn how humans can adapt to living in space – which is very important for future space exploration. The ISS is a HUGE project by 5 different space agencies from around the world: NASA (from the USA), Roscosmos (from Russia), the Canadian Space Agency, JAXA (from Japan), and the European Space Agency. A project like this is ONLY possible if countries work together.

The ISS was assembled in space, piece by piece, with each space agency providing a different section. It couldn't be put together on the ground – there's no rocket powerful enough to launch a space station that's as big as a football pitch! The ISS is so big that it took over 12 years to assemble. And this all had to be done while it was flying at 17,000 miles per hour, making a lap of the Earth every 90 minutes.

The ISS is fully solar-powered and it's so bright that you might spot it as it flies over your country. It's the third-brightest thing in the sky after the sun and moon and it looks like a super-fast plane. You can see where it is right now using NASA's Spot the Station website.



Astronauts and cosmonauts have to exercise for 2 hours a day so they don't lose bone and muscle (because they're not used enough in space).

All kinds of experiments are conducted on the ISS — like growing vegetables in space.

There are small robots on the ISS — they help with things like repairs and taking pictures. Some can even chat and play music!

A special space system on the ISS recycles urine into drinking water.

This robotic arm (Canadarm2) helps with construction and repair work. It also grabs on to space vehicles to help them land on the station and deliver people, equipment, and supplies.

Spacewalks to do experiments or repair the ISS are very dangerous. Astronauts/cosmonauts work in pairs, tethered to the station so they don't float away. Spacesuits help them breathe and protect them from extreme temperatures.

Now, space agencies have set their sights on building the "Gateway", a station in the moon's orbit. This would be a launchpad for exploring the moon, Mars, and beyond. But space exploration is expensive and complex – it's too big a challenge for any one country. If we are going to do this, we will have to do it together . . .